Figure 1. Amino acid alignment of human CNG2B with rat OCNC2. Identical residues are shaded and numbers at the left margin indicate amino acid position.

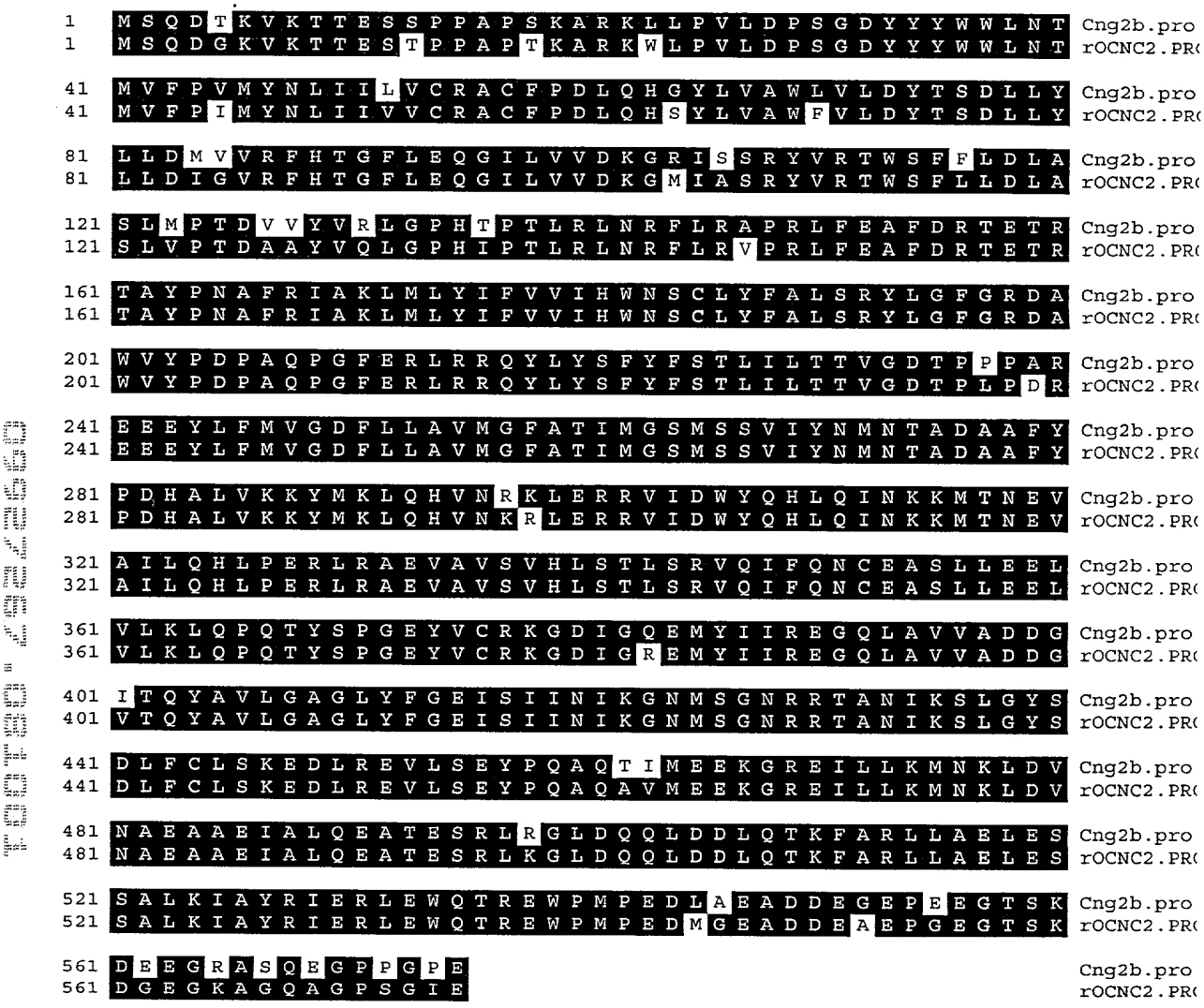

Figure 2: human CNG2B sequence derived from assembly of PCR fragments

AGAGGGGAGGAGGAAAACAGAGACAAGACTCAGGCTTCCCTCTGAGGCATGCACCCCCACCTTCTCCAGGGATCTCA
TTAGAGGTGTTTAGCTGGGCAGGTGTAAGCCCAGGCCCTGGGAGACAGGGCAGAGTGCTAGAGCTAGACTGTCTCCA
CCCCTTCAGTAGCGCTAGCTCTGGTTGTGTTGCTAAGAGCCCCAAAGACAAAGAAGTCACAGCAGAAGCCCAACAGC
AGCCTCCTTCAGACAGTCAGGCACTAGTGCCCAACTCCAGAAGTCCCCTACAGGCAGAGAGGGTGTGGACATCTCAC
ACCCCAGCACCAGACCACAGAACCATGAGCCAGGACACCAAAGTGAAGACAACAGAGTCCAGTCCCCCAGCCCCATC
CAAGGCCAGGAAGTTGCTGCCTGTCCTGGACCCATCTGGGGATTACTACTACTGGTGGCTGAACACAATGGTCTTCC
CAGTCATGTATAACCTCATCATCCTCGTGTGCAGAGCCTGCTTCCCCGACTTGCAGCACGGTTATCTGGTGGCCTGG
TTGGTGCTGGACTACACGAGTGACCTGCTATACCTACTAGACATGGTGGTGCGCTTCCACACAGGATTCTTGGAACA
GGGCATCCTGGTGGTGGACAAGGGTAGGATCTCGAGTCGCTACGTTCGCACCTGGAGTTTCTTCTTGGACCTGGCTT
CCCTGATGCCCACAGATGTGGTCTACGTGCGGCTGGGCCCGCACACACCCACCCTGAGGCTGAACCGCTTTCTCCGC
GCGCCCCGCCTCTTCGAGGCCTTCGACCGCACAGAGACCCGCACAGCTTACCCAAATGCCTTTCGCATTGCCAAGCT
GATGCTTTACATTTTTGTCGTCATCCATTGGAACAGCTGCCTATACTTTGCCCTATCCCGGTACCTGGGCTTCGGGC
GTGACGCATGGGTGTACCCGGACCCCGCGCAGCCTGGCTTTGAGCGCCTGCGGCGCCAGTACCTCTATAGCTTTTAC
TTCTCCACGCTGATACTGACTACAGTGGGCGATACACCGCCGCCAGCCAGGGAAGAAGAGTACCTCTTCATGGTGGG
CGACTTCCTGCTGGCCGTCATGGGTTTCGCCACCATCATGGGTAGCATGAGCTCTGTCATCTACAACATGAACACTG
CAGATGCGGCTTTCTACCCAGATCATGCACTGGTGAAGAAGTACATGAAGCTGCAGCACGTCAACCGCAAGCTGGAG
CGGCGAGTTATTGACTGGTATCAGCACCTGCAGATCAACAAGAAGATGACCAACGAGGTAGCCATCTTACAGCACTT
GCCTGAGCGGCTGCGGGCAGAAGTGGCTGTGTCTGTGCACCTGTCCACTCTGAGCCGGGTGCAGATCTTTCAGAACT
GTGAGGCCAGCCTGCTGGAGGAGCTGGTGCTGAAGCTGCAGCCCCAGACCTACTCACCAGGTGAATATGTATGCCGC
AAAGGAGACATTGGCCAAGAGATGTACATCATCCGAGAGGGTCAACTGGCCGTGGTGGCAGATGATGGTATCACACA
GTATGCTGTGCTCGGTGCAGGGCTCTACTTTGGGGAGATCAGCATCATCAACATCAAAGGGAACATGTCTGGGAACC
GCCGCACAGCCAACATCAAGAGCCTAGGTTATTCAGACCTATTCTGCCTGAGCAAGGAGGACCTGCGGGAGGTGCTG
AGCGAGTATCCACAAGCACAGACCATCATGGAGGAGAAAGGACGTGAGATCCTGCTGAAAATGAACAAGTTGGACGT
GAATGCTGAGGCAGCTGAGATCGCCCTGCAGGAGGCCACAGAGTCCCGGCTACGAGGCCTAGACCAGCAGCTGGATG
ATCTACAGACCAAGTTTGCTCGCCTCCTGGCTGAGCTGGAGTCCAGCGCACTTAAGATTGCTTACCGCATTGAACGG
CTGGAGTGGCAGACTCGAGAGTGGCCAATGCCCGAGGACCTGGCTGAGGCTGATGACGAGGGTGAGCCTGAGGAGGG
AACTTCCAAAGATGAAGAGGGCAGGGCCAGCCAGGAGGGACCCCCAGGTCCAGAGTGACCCCATCCCCATCCCCAGG
ATTCCCACCTCCTAGTGAATCCAGAGTTGTAGTAAAGCCTAACTGCTGCAACTCTGTCATCCTGTCTGCGAGATCAC
AGACACAGGAGCGAATTGGTCTGTAGATGCCCAGCTAGAGATATAGGAGTTTAACGCACATTCAGCCCCCACTTACC
AGTACACACACACACACACACACACACACACACATTTGCTCATAGACCTGTTGGCCCCAAGACTGTGCATTCCATCTAA

Figure 3

CNG2B Coding Sequence

ATGAGCCAGGACACCAAAGTGAAGACAACAGAGTCCAGTCCCCCAGCCCCATCCAAGGCCAGGAAGTTGCTGCCTGT
CCTGGACCCATCTGGGGATTACTACTACTGGTGGCTGAACACAATGGTCTTCCCAGTCATGTATAACCTCATCATCC
TCGTGTGCAGAGCCTGCTTCCCCGACTTGCAGCACGGTTATCTGGTGGCCTGGTTGGTGCTGGACTACACGAGTGAC
CTGCTATACCTACTAGACATGGTGGTGCGCTTCCACACAGGATTCTTGGAACAGGGCATCCTGGTGGTGGACAAGGG
TAGGATCTCGAGTCGCTACGTTCGCACCTGGAGTTTCTTCTTGGACCTGGCTTCCCTGATGCCCACAGATGTGGTCT
ACGTGCGGCTGGGCCCGCACACACCCACCCTGAGGCTGAACCGCTTTCTCCGCGCGCCCCGCCTCTTCGAGGCCTTC
GACCGCACAGAGACCCGCACAGCTTACCCAAATGCCTTTCGCATTGCCAAGCTGATGCTTTACATTTTTGTCGTCAT
CCATTGGAACAGCTGCCTATACTTTGCCCTATCCCGGTACCTGGGCTTCGGGCGTGACGCATGGGTGTACCCGGACC
CCGCGCAGCCTGGCTTTGAGCGCCTGCGGCGCCAGTACCTCTATAGCTTTTACTTCTCCACGCTGATACTGACTACA
GTGGGCGATACACCGCCGCCAGCCAGGGAAGAAGAGTACCTCTTCATGGTGGGCGACTTCCTGCTGGCCGTCATGGG
TTTCGCCACCATCATGGGTAGCATGAGCTCTGTCATCTACAACATGAACACTGCAGATGCGGCTTTCTACCCAGATC
ATGCACTGGTGAAGAAGTACATGAAGCTGCAGCACGTCAACCGCAAGCTGGAGCGGCGAGTTATTGACTGGTATCAG
CACCTGCAGATCAACAAGAAGATGACCAACGAGGTAGCCATCTTACAGCACTTGCCTGAGCGGCTGCGGGCAGAAGT
GGCTGTGTCTGTGCACCTGTCCACTCTGAGCCGGGTGCAGATCTTTCAGAACTGTGAGGCCAGCCTGCTGGAGGAGC
TGGTGCTGAAGCTGCAGCCCCAGACCTACTCACCAGGTGAATATGTATGCCGCAAAGGAGACATTGGCCAAGAGATG
TACATCATCCGAGAGGGTCAACTGGCCGTGGTGGCAGATGATGGTATCACACAGTATGCTGTGCTCGGTGCAGGGCT
CTACTTTGGGGAGATCAGCATCATCAACATCAAAGGGAACATGTCTGGGAACCGCCGCACAGCCAACATCAAGAGCC
TAGGTTATTCAGACCTATTCTGCCTGAGCAAGGAGGACCTGCGGGAGGTGCTGAGCGAGTATCCACAAGCACAGACC
ATCATGGAGGAGAAAGGACGTGAGATCCTGCTGAAAATGAACAAGTTGGACGTGAATGCTGAGGCAGCTGAGATCGC
CCTGCAGGAGGCCACAGAGTCCCGGCTACGAGGCCTAGACCAGCAGCTGGATGATCTACAGACCAAGTTTGCTCGCC
TCCTGGCTGAGCTGGAGTCCAGCGCACTTAAGATTGCTTACCGCATTGAACGGCTGGAGTGGCAGACTCGAGAGTGG
CCAATGCCCGAGGACCTGGCTGAGGCTGATGACGAGGGTGAGCCTGAGGAGGGAACTTCCAAAGATGAAGAGGGCAG
GGCCAGCCAGGAGGGACCCCCAGGTCCAGAGTGA

Figure 4
CNG2B Amino Acid Sequence

MSQDTKVKTTESSPPAPSKARKLLPVLDPSGDYYYWWLNTMVFPVMYNLIILVCRACFPDLQHGYLVAWLVLDYTSD
LLYLLDMVVRFHTGFLEQGILVVDKGRISSRYVRTWSFFLDLASLMPTDVVYVRLGPHTPTLRLNRFLRAPRLFEAF
DRTETRTAYPNAFRIAKLMLYIFVVIHWNSCLYFALSRYLGFGRDAWVYPDPAQPGFERLRRQYLYSFYFSTLILTT
VGDTPPPAREEEYLFMVGDFLLAVMGFATIMGSMSSVIYNMNTADAAFYPDHALVKKYMKLQHVNRKLERRVIDWYQ
HLQINKKMTNEVAILQHLPERLRAEVAVSVHLSTLSRVQIFQNCEASLLEELVLKLQPQTYSPGEYVCRKGDIGQEM
YIIREGQLAVVADDGITQYAVLGAGLYFGEISIINIKGNMSGNRRTANIKSLGYSDLFCLSKEDLREVLSEYPQAQT
IMEEKGREILLKMNKLDVNAEAAEIALQEATESRLRGLDQQLDDLQTKFARLLAELESSALKIAYRIERLEWQTREW
PMPEDLAEADDEGEPEEGTSKDEEGRASQEGPPGPE